

NESTING OF THE HERMIT WARBLER IN THE SIERRA
NEVADA MOUNTAINS, CALIFORNIA.

BY CHESTER BARLOW.

IT WAS in the summer of 1896 while quietly and leisurely working my way down a steep hill, through a tangle of manzanita and deer brush into a growth of pines, that I met my first Hermit Warbler in life. I had arrived in the Sierra Nevada Mountains of El Dorado Co., Cal., a few days previously, and when I first ventured to explore the woodland, the many similar dainty bird songs from the heavy foliated black oaks, made positive acquaintance with the various Warblers, by song alone, a difficult matter. This was partially overcome later, but when the notes were mingled in the tree-tops early in the morning, with the little musicians deftly hidden amongst the leaves, it was never easy to always name the songster. Of the Warblers the genus *Dendroica* was represented by *nigrescens*, *auduboni*, *occidentalis* and *æstiva*, with the latter least common, while the Calaveras (*Helminthophila rubricapilla gutturalis*) and Macgillivray's Warblers (*Geothlypis macgillivrayi*) were quite common in the underbrush and the roselike shrub known as 'mountain misery,' both of the latter, however, often feeding in the trees, usually in the black oaks. I also shot one specimen of the Lutescent Warbler (*Helminthophila celata lutescens*) in this locality, which was the only one seen. My observations ranged from 3,000 to 4,500 feet altitude, but the nesting sites were all at 3,700 feet, which formed a part of the transition zone, in which species of both the valley and higher mountains were nesting.

So on July 19, 1896, while whiling away an afternoon on the wooded hillside, a Hermit Warbler (*Dendroica occidentalis*) flitted noiselessly down through the pines and alighted on a bush ten feet distant, its light yellow head and black throat setting off its plumage with rather an odd effect. This specimen I collected, it proving to be a male bird. Thereafter it was met with frequently, seeming to prefer the coniferous trees, where it flitted about feeding and indulging in an occasional burst of song.

In 1897, June 7 to 15 was spent in the same region, the Warblers seeming present in usual numbers, with the Black-throated Gray and Macgillivray's noticeably more common than the others. The Macgillivray's Warbler was commonly noted with families of young in the thick deer brush of the burnt districts, and on June 15 I found a nest of the Black-throated Gray Warbler, cosily hidden away in the center of a manzanita bush on a hillside, containing four eggs advanced in incubation. The nest was seven feet from the ground and the grayish materials of which it was composed harmonized perfectly with the light greenish gray leaves of the manzanita bush.

A nest of the Hermit Warbler was discovered June 11, 1897, by Mr. F. M. Nutting, just after he had shot the female as she flew to the tree, and contained four young about four days old. The nest was in a small cedar tree, about two and one-half feet from the top of the tree and twelve feet from the ground. It was built on a small horizontal limb of the cedar next the trunk, and was perfectly concealed amid the foliage. The tree grew within a few feet of a wood road, and on the following day the male was observed feeding the young, apparently not seeming to notice the absence of its mate. On the 14th of June a heavy rain and thunder-storm prevailed, resulting in the death of the young birds. The location of this nest seems an exception, the typical nesting seeming to be in the tall conifers.

This year (1898) it was my ambition to seek out the nesting site of the Hermit Warbler, and daily when strolling down the cañon-side or along the paths in the woods, I would see little *D. occidentalis* flitting about a fir tree here or a deer bush a little farther on, nowhere evincing a particular interest and finally fading from view. Once again while sitting in a pine grove quietly waiting to see which of our feathered friends would first discover me, a Hermit Warbler alighted on a low limb of a pine, perhaps fifteen feet away, and deliberately hopped from limb to limb, working toward the top where it was lost to view. To satisfy my curiosity I climbed the tree, which was about 35 feet in height, but there was no evidence of a nest. The Hermit Warbler did not appear to be as active as some of the others, notably the Black-throated Gray, which was very lively both in action and

song while on the border of the clearings, while the Hermit was more deliberate in its movements.

On June 14, I was located at Fyffe, El Dorado Co., and shortly after lunch sauntered along a trail leading off the old stage road and was soon in a growth of yellow pine, which was here and there interspersed with a small clearing where a giant spruce or fir had once towered, but which had long since found its way to the saw-mill. The day was cloudy and the birds were in fuller song than usual at this time of the day. Several Warblers were at first watched to no effect. I was carefully scanning the trees, and presently saw a small dark spot among the needles near the top of a slender pine which stood in a small open space close to a large black oak. No birds came to view, so I climbed the tree, and when well toward the top the uncertain spot became with certainty a small nest, and a moment later I could discern a reddish lining of cedar bark and four eggs which I concluded were those of the Hermit Warbler. Waiting a few moments and not disturbing the nest, soon one and then both birds appeared, settling all doubt as to the identity of the nest. Both hopped slowly about in the top of a black oak exhibiting very little concern and occasionally uttering a weak *tseet*; but no song was given at this time. Leaving the nest I watched the bird from the ground. She flew to the pine and hopped now up and then down, picking at the limb at each hop and finally disappearing into the nest. Returning shortly after with camera I again climbed the tree, the female leaving the nest when I was several feet from it. With difficulty, sitting astride a small limb, I made several pictures of the nest *in situ*.

The nest was 45 feet from the ground in a yellow pine, built four feet from the trunk of the tree on an up-curved limb 18 inches from the end. The nest rested nearly on the pine needles at the junction of two small limbs. Carefully wrapping the eggs I sawed off the limb supporting the nest; this seemed to excite the birds more than anything else, both hopping about and uttering their *tseet, tseet* at a lively rate. When I finally descended, the birds hopped about the tree and to the spot where the nest had been; then one would fly to a large spruce near by and launch into a weak song. I collected the female parent.

The nest is not fastened to the limb, resting merely upon the limb and pine needles and is wider at the bottom than at the top, its base measuring four inches one way and three inches the other. It is very prettily constructed, the bottom layer being of light grayish weed stems, bleached pine needles and other light materials held securely together by cobwebs and woolly substances. The nest cavity is lined with strips of red cedar bark (*Libocedrus*) and the ends, instead of being woven smoothly, project out of the nest. The inner lining is of a fine brownish fiber resembling shreds of the soap-root. The composition of the nest gives it a very pretty effect. The eggs were about two-fifths advanced in incubation and measured $.66 \times .52$, $.68 \times .53$, $.67 \times .53$ and $.67 \times .53$ inches. They are spotted chiefly in wreaths at the large end with varying shades of lilac, brown and chestnut. This forms the second recorded set of eggs of this Warbler, the first having been taken by Mr. R. H. Beck in 1896 near this locality.

During my stay in the mountains I became well acquainted with the song of the Hermit Warbler. Though not loud it would penetrate through the woods quite a distance and very much resembled *tsit, tsit, tsit, tsit, chee chee chee*, the first four syllables being uttered with a gradual and uniform speed, ending quickly with the *chee chee chee*. It was quite distinct from any of the other Warbler songs, and whenever it was heard the little musician was usually traced to some pine tree where he would be found hopping nervously about.

My ten days' vacation was productive of many interesting sights. Western Robins were nesting rather commonly, seeming to prefer the pines and cedars, in which the nest was usually placed near the top in a crotch at the trunk of the tree. Cassin's Vireos, usually common nesting residents, were going about in pairs in full song, and it seems likely that but few nested this season, owing to peculiar climatic conditions.

A pair of White-headed Woodpeckers had a nest seven feet up in a large pine stub near the house, in which a pair of Western Bluebirds were also nesting. Both the nests contained young and it was interesting to observe them. As I watched, the female Woodpecker, with a grub in her beak, came and alighted variously on the fence and cedar trees near by until she sum-

moned courage enough to fly to the stub, when both Bluebirds fiercely attacked her, she retreating to a pine on the edge of the woods. Soon she ventured to try again and alighted on the back of the large stub, when instantly the young Woodpeckers set up their squeaky little notes, evidently having heard her through the medium of the wood. She hopped around and up to the hole and one little white head bobbed up. She thrust her head into the cavity, deposited the morsel and was away to the forest once more. During the next few days it was a common sight to see a little white head peering out of the hole, its little owner evidently anxious to see the outside world.

My friend, Mr. L. E. Taylor, a very careful observer, sent me a beautiful nest and five eggs of the Western Winter Wren, which he collected on July 12 near Fyffe, El Dorado Co. He writes that an old nest was shown him by a German prospector and while examining it the new nest was discovered. Mr. Taylor writes as follows: "He said that in his country (Germany) the bird was called the 'Snow King,' as it came only in winter and lived in the snow. From his description I thought it must be the Western Winter Wren, so I got him to show me the nest with a view to photographing it for you and collecting the nest. He said he was prospecting and was 'panning out' and heard a sort of drumming noise and looked up to see what caused it and saw it was made by the 'Snow King,' which was feeding its young not more than two feet from his head. He watched the bird some time and continued to work near by and to 'pan out' in the same place. The bird soon became quite fearless and seemed to be not at all afraid of him.

"The nest is built in the side of a perpendicular bank about four feet high and the nest is half way up and is set into the bank so the outer edge of the nest is even with the face of the bank and just showed the rim and a little moss on careful inspection. The entrance looks like a small hole in the bank. I could just reach the bottom of the nest with my fingers and found some egg shells, showing young had been raised. While talking the matter over I saw a Wren fly down into a prospect hole a short distance away, and it not coming out again, I went to the hole and, stepping into it, flushed the bird from the nest.

It proved to be situated just like the other one and contained five beautiful eggs. I got the nest out with some difficulty, as it was held to the bank by many small roots. The cavity in which the nest was made is lined overhead with moss, making a roof for the nest."

Upon receiving the nest and eggs from Mr. Taylor I found the eggs addled and the bird had doubtless been sitting upon them for some time in vain; otherwise this nesting date would be unusually late and the site of the nest an unusual one. The prospect hole in which the nest was found was on a hillside fully exposed to the sun and very dry, which seems quite in contrast to the usual habitat of this Wren.

SOME OBSERVATIONS ON THE ANATIDÆ OF NORTH DAKOTA.

BY REV. HERBERT K. JOB.

IT was my privilege in the spring of 1898 to enjoy a collecting trip in North Dakota that covered nearly the whole nesting period,—from May 6 to July 4. With a companion, 'rig,' and camp outfit I made a 600 mile tour, visiting most of the principal lakes in the northern half of the State, as far west as into the Turtle Mountains. Paying especial attention to the Ducks, I had an unusual opportunity to note the distribution of the different species throughout the broad region that I traversed. Fourteen species were found nesting, namely,—Mallard, Gadwall, Baldpate, Green-winged Teal, Blue-winged Teal, Shoveller, Pintail, Redhead, Canvas-back, Lesser Scaup, Ring-neck, American Golden-eye, White-winged Scoter, and Ruddy Duck.

As nearly all the land in the region visited has been, or is being, taken up by settlers, the Anatidæ are on the wane in the breeding season, according to all accounts. Yet I was surprised at